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BOEING NEWS

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'Boeing is great'

Spirit goes on with 500th 757

Delta Air Lines, operator of the world's largest fleet of Boeing 757s, flew away last week with the 500th to be delivered — just a month before the 10th anniversary of the 757's first delivery.

"The 757 is a tribute to the great people of Boeing, as far as engineering, innovation and spirit," said Harry Alger, Delta senior vice president for Operations, during the delivery ceremony.

"Spirit," Alger noted, was the name of the first 767 for Delta, which he "was privileged to take home." That was in 1982.

The new 757 is a "continuation of that spirit," he said.

Friday's delivery gave Delta its 79th 757. The carrier has nine more on order.

Delta's standard-width 757s are operated with a large fleet of wide-body 767s — 50 in service and nine more on order — on routes throughout the continental United States, including Alaska, and soon to Costa Rica, Guatemala and Venezuela. Because 757s and 767s have a common type rating, pilots rated on one also are certified to fly the other.

The first 757 delivery, in Decem-



Delta Air Lines employees in Seattle for delivery of the 500th 757 last Friday — the carrier's 79th — pose with a banner expressing their regard for Boeing. At the foot of the boarding steps, holding the key to the new twinjet, is Harry

Alger, Delta senior vice president for Operations. The 757 will enter service in a route system across the continental United States, to Alaska, and soon to Costa Rica, Guatemala and Venezuela.

— photo by Jim Coley

Carter: 'CQI must prevail at Boeing'

"f we don't proceed and continue on the road to Continuous Quality Improvement, in the latter part of this decade or in the early part of the next century, it may be we will no longer be a prominent provider of aerospace products and services."

That warning came from Art Carter, Boeing vice president of Continuous Quality Improvement,

during a visit to Huntsville, Ala. Explaining the concept and challenge of CQI for employees, Carter said:

"Quality is meeting or exceeding customer expectations at a cost that represents value. Now you can enhance that definition, put some adjectives with it and say internal customers, external customers; you can talk about hardware, software, service; you can talk about repeat-

ability and predictability. But fundamentally, quality is meeting or exceeding customer expectations, at a cost that represents value."

"CQI is a management system and a philosophy," he said. "It is the way we want to run Boeing. It involves everybody in the work force: management, non-management, represented work force and non-represented work force.

"It is looking at how we think

Boeing has to work in the latter part of this decade and the early part of the 21st century in order to be competitive. It envisions a permanent change overall in the way we manage The Boeing Company. It is not a destination, it is not a trip. It's a never-ending journey."

Carter said the companywide impetus for CQI began in 1988,

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New painting process protects environment

Project by Everett team means savings

With cooperation and ingenuity, Boeing has implemented a new painting process that replaces solvent-based inks with more environmentally friendly water-based inks used for interior panels on all Boeing jetliners.

The environmentally sound and less costly process means savings for airline customers. It resulted from an effort teaming the Everett Division Interiors silkscreen employees and Manufacturing Research and Development (MR&D)

department, with Pennsylvania's Lehigh University.

"We developed the water-based inks over about five years," said Jim Higman, operations technology manager for the Interiors group.

"Our toughest challenge was to develop a water-based ink that would adhere to plastic."

The testing was meticulous and methodical, according to Joyce LaGow, MR&D technician.

"A long line of inks were developed and tested," she said. "Some dried too fast, clogging the screens used to print the airlines' color schemes on sidewalls. Others didn't dry fast enough, or would not adhere."

A detailed chemical analysis had to be conducted on plastic material used to coat the interior panels.

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Boeing technicians Darwin Jenner, left, and Joyce LaGow examine a recently painted decorative panel silk-screened

for the interior of an EgyptAir 767. The panel was printed with water-based ink that is environmentally "friendly."

Name, address records must be up to date to get W-2 pay forms

To avoid delay in preparing income tax returns next year, employees are urged now to make sure their names and home addresses on record with the company are correct.

Correct names and addresses are important, according to the Payroll Tax Administration and Accounting office of Boeing Support Services, because they may make a difference in an employee's promptly receiving a W-2 form.

W-2 forms, which show an employee's wages and taxes paid for the year, are needed in preparing income tax returns. The forms are sent in mid-January to employees' regular paycheck locations. If employees cannot be reached at their regular paycheck location, the W-2 forms will be sent to their home addresses on record with the company.

The correctness of names and addresses on record with the company can be checked by referring to a paycheck. Names and addresses on the paycheck are those on record with the company.

To make a name or address change, employees may obtain a "Name Change Notice" or "Address Change Notice" from personnel representatives or shop clerks.

Completed name change notices should be returned to "Name Change" at Mail Stop 7B-CF for Seattle, K03-21 for Wichita or P28-11 for Philadelphia. Completed address changes should be returned to a personnel representative.

The deadline for returning name or address changes is Dec. 18.

The Payroll Tax office offers the following answers to tax-related questions frequently asked as tax return time approaches.

Q: What am I currently claiming on my Form W4, the Employee's Withholding Allowance Certificate?

A: This information can be found on your paycheck stub. Look in the Taxes/Exemptions area of the stub for the "Federal Withholding" line, where S00X or M00X is indicated.

"S" means an employee has claimed single status and "M," married status. The space indicated here by "X" is for the number of exemptions claimed. S001 on the paycheck stub, for instance, means a single person with one exemption.

Q: Where can I get a new Form W4?

A: At a pay window, personnel office or from your timekeeper.

In filling out the form, make sure to complete it:

Completely fill in the address block. Check only one box for marital status. Enter numbers (even if zero) on line 5, total number of allowances claimed, and line 6, additional deductions, if any. Leave line 7 blank if deduction from withholding is not claimed.

Send the completed form to:

When the form is complete, mail it to "Form W4" at Mail Stop 9C-56 for Seattle, K30-15 for Wichita or P25-24 for Philadelphia.

Q: I was on temporary assignment in another state, which has no income tax, and I will have to file an income tax return for that state. Where can I get the state tax return form?

A: State tax return forms and instructions can be obtained from the particular state's department of revenue or by sending a request to "State Return," mail stop 9C-56. In the request, identify the state for which the return form is needed, whether you will be filing as a resident or non-resident of that state and your name and mail stop.

State tax return forms will not be available in the Payroll Tax Office until the end of February 1993. Requests received before then will be kept on file and filled when the forms are available.

757's versatility noted

DELTA

From Page 1

ber 1982, was to Eastern Airlines.

Ron Woodard, Boeing Commercial Airplane Group vice president and general manager of the Renton Division, where the 757 is assembled, commented during the ceremony on the twinjet's fuel efficiency, passenger comfort and quietness, and particularly on its versatility.

"It was designed to fly short routes as well as long routes efficiently," Woodard said.

He gave an example of how the 757's versatility is used at Delta, on Flight 977:

"In the morning, this flight flies a short trip from Washington, D.C., to Atlanta, then picks up passengers for a midday transcontinental flight from Atlanta to San Francisco."

The 757 is certified to fly 180-minute extended-twin operations, Woodard noted. This means it can fly routes that are up to three hours of single-engine flying time from alternative airports.

It is the only standard-body twin-

jet that can fly at 42,000 feet, allowing direct paths above weather and traffic congestion on longer routes.

Continuing refinements of the 757 should keep it in production at least until he retires, in 2008, Woodard noted.

One new feature under study for the 757 is a flexible interior, where seats, galleys and lavatories can be rearranged quickly to match passenger demands on different routes.

Depending on seating, 757s can carry from 175 to 231 passengers. The 757 delivered last week to Delta will seat 182 passengers in a two-class configuration.

The wide-body 767 seats up to about 260 passengers, depending on model and seating configuration.

With 78,000 employees and more than 550 aircraft, Delta is one of the world's largest airlines.

Besides 757s and 767s, Delta also operates Boeing 727s and 737s, Airbus A310s, Lockheed L-1011s, and McDonnell Douglas DC-9s, MD-88s and MD-11s.

In all, 789 757s have been ordered, from 39 customers in 18 countries. ■



"Quality is meeting or exceeding customer expectations at a cost that represents value," Art Carter, Boeing vice president of Continuous Quality Improvement, told Boeing employees

in Huntsville, Ala., during a recent visit there. Quality is not a destination, it is a "never-ending journey," Carter emphasized during meetings with several groups of employees.

Meet customer expectations

CARTER

From Page 1

when Boeing Chairman Frank Shrontz and about two dozen of his senior managers fashioned a mission along with related goals and objectives for the corporation.

"They said, 'We want to be the No. 1 aerospace company in the world, and we want to be considered among premier industrial firms measured by three things: quality, profitability and growth.'"

Carter said quality would be measured by customers, employees and the communities in which Boeing does business.

Profitability would mean a 20-percent return on stockholder equity, on average, and annual growth of 5 percent, on average, based on sales.

"And with that there were some objectives to support these goals: continually improve our products and our processes; maintain a highly skilled and motivated work force; a capable and focused management team; technical excellence; financial strength; and a commitment, always, to integrity."

Detailing the importance of CQI, Carter said the only thing certain about the defense business is that investment by the federal government is going to be less, growth in space business will be modest, if at all, and competition will be much more intense.

"Those who prevail will be the people who meet customer expectations at a cost that represents value," he said.

On the commercial side of the business, Carter said, Airbus already has evolved as a formidable competitor; the Taiwanese already are making overtures to build airplanes; the Japanese can build airplanes; and the largest commercial fleet in the world is in the former Soviet Union.

"So we are talking about a new competitive world, a world where we, the USA, are no longer the largest economic market."

II Fundamentally, quality is meeting or exceeding customer expectations, at a cost that represents value. ■

"If we are going to prevail and grow in that world, we have to be competitive globally," Carter said.

"CQI is an essential requirement for competitiveness," he said. "Being competitive leads to profitability, which encourages the investment required to remain competitive. But perhaps more of interest, CQI, competitiveness and profitability lead to jobs — and ultimately to our quality of life."

Carter said there are other reasons why CQI is necessary:

"We've looked at world-class Japanese companies. We've looked at European companies that are

OBJECTIVE: Continuous improvement in quality of products and processes.

among the best. We've looked at outstanding companies in the United States. We've studied these 'best of the best' companies with respect to their management practices and principles. From these studies, we've concluded that CQI is critical to our future competitiveness."

Carter said that while there were many great things happening in Boeing across the board today in all four of the operating groups, he'd like to see the institutionalizing of CQI growing much faster — and he'd like to see a management team more capable of coping with the accelerated pace.

"But even with my concerns and my frustrations, we are a much different company than we were 10 years ago," he said. "We've made progress in defining and improving processes. We are handling employee stabilization much better than we were. We are handling suppliers and dealing with our work force much better than we were. We have made significant strides, but we have a long way to go."

"Trying to convey to everybody in the work force the things that we have learned in looking at world-class corporations; making the commitment to change; preparing for a much more competitive world — in my estimation these are some of the most impressive things we have ever undertaken." ■

New 'perfect' ink reduces costs

INKS

From Page 1

"Finally," she said, "an ink was developed with perfect properties."

Higman said the new ink greatly reduces the amount of volatile organic compounds released into the air — by an estimated 115 tons a year.

"People tend to think that anything that's environmentally sound is going to cost more money," LaGow said.

"With this product, there will be cost savings. And, we will no longer have to pay to treat the haz-

ardous waste, and no longer have to buy solvents to clean screens."

The savings ultimately are passed on to the customer, said Larry Staigner, Interiors manager.

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BOEING

BOEING NEWS

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Time is short for changes in VIP, other benefit plans

Only four days remain in the 1992 open enrollment period for the following benefit plans: the Voluntary Investment Plan, the Dependent Care Expense Account Plan for salaried employees and the Voluntary Personal Accident Plan for salaried employees.

November is generally the only month during the year employees may enroll in these plans or change their current participation. All enrollments and changes made in November are effective Jan. 1, 1993.

Voluntary Investment Plan (VIP)

The VIP enables employees to invest a percentage of their earnings to save for the future.

Key features of the plan include:

- Five investment funds into which an employee may invest his or her money.

- Opportunity to contribute from 1 to 12 percent of base earnings in 1-percent increments.

- A company contribution of 50 cents for every dollar an employee contributes, up to 8 percent of his or her base earnings.

- Pre-tax and after-tax contribution options.

- Flexibility to change the in-

vestment allocation of future contributions and transfer money between funds each quarter, effective the first day of the following quarter.

Dependent Care Expense Account Plan

The Dependent Care Expense Account Plan provides salaried employees the opportunity to pay for qualified day-care expenses with money that is tax-free.

This means employees pay for expenses with money that is taken from their paychecks before federal income and FICA (Social Security) taxes are withheld.

Employees may open an account for a dependent under age 13 or a spouse, parent or child who is unable to care for himself or herself because of a physical or mental disability.

Qualified expenses include licensed day-care centers, preschool tuition, care provided in or outside the home by someone other than another dependent and a housekeeper, maid or cook who provides household services while caring for the qualified dependent.

Employees who participated in the plan during 1992 should have received a re-enrollment packet in

the mail. All current participants must re-enroll to participate in 1993.

Voluntary Personal Accident Plan

The Voluntary Personal Accident Plan (VPA) for salaried employees provides benefits in the event that an accident causes death or the loss of limbs, eyesight, speech or hearing of an employee or covered family member.

Employees pay the full cost of coverage under this plan through monthly payroll deductions.

Information

To receive information about the VIP employees may contact their local employee benefits office. Or, employees may contact the Corporate VIP Office at 206-662-4000 or the Payroll VIP Office at 206-393-9083 (in the Puget Sound region) or 1-800-553-9809 (outside the Puget Sound region).

To receive information about the Dependent Care Expense Account Plan or the VPA for salaried employees contact the local group insurance office or the Corporate Group Insurance Office at 206-655-2391 (in the Puget Sound region) or 1-800-621-2391 (outside the Puget Sound region). ■

TECHNICAL SOCIETIES

■ Optical Society of America, Puget Sound Chapter:
"Characterization of High-Power Photocoustic Sensors," Advanced Materials & Space Generation '92, Nov. 24, Room 100, Washington Electrical Engineering Bldg. For information, Jan Manchester, 682-4602.

■ American Astronautics and Astronautics, Pacific Northwest Chapter:
"Olympic Bobbed Performance, Recent Developments," Jerry Baer, Flight Research Institute, 8 p.m.

■ Aerospace and Defense, Seattle Chapter:
"Aerospace and Defense," Nov. 24, 7 p.m.

After 7 p.m. dinner Dec. 17 at Branier Brewery Main Room, Seattle. For ticket information, Ed Plunkett, 244-7075.

Non-members are welcome at technical society meetings. Notices submitted to Boeing News of the local meetings and other activities of technical societies must be received the Friday before the Friday of the meeting. Send notices to Boeing News, Boeing News mail stop 18-93 for in-plant mail. For mail from outside the company, add: The Boeing Company, P.O. Box 3707, Seattle, Wash. 98124.

Boeing Lifeline

Blood donations will be accepted by Boeing Lifeline next week at:

Electronics Center, 8 to 11 a.m. Tuesday, Nov. 24, 7-812 bldg., parking area, southwest side;

Everett, Bomarc site, Wednesday, Nov. 25, canceled;

Everett, 8 a.m. to 2 p.m. Wednesday, Nov. 25, basement, northeast corner of 40-31 bldg.;

Everett, 8:30 to 11 a.m. Tuesday, Nov. 24, parking area between 7-112 and 7-121 bldgs.;

Paine Field, 8 a.m. to 3 p.m. Tuesday, Nov. 24, parking area on west side of 41-01 bldg., Kent Baranoya, 10 a.m. to 4 p.m. Tuesday, Nov. 24, 7-48-05 bldg., col. F-6;

Lynnwood Material, 9 a.m. to 3 p.m. Tuesday, Nov. 24, 7-363 bldg., cafeteria;

Washington Technical Center and Blackrizer Corporate Park, 9 a.m. to 3 p.m. Wednesday, Nov. 25, 7-223 bldg., training rooms 3 and 4.

VIP loan rates

Interest rates for Voluntary Investment Plan loans are 7.35 percent in November and 8.00 percent in December.

The rates apply to completed loan applications requiring these terms and remain in effect for the terms of the loan.

They are comparable with interest rates charged on similar commercial loans.

For information, telephone the Boeing Employee Financial Line, (206) 662-3744, ext. 1006.

Clip and mail to: SMOKEBUSTERS, MS OY-75

| | |
|--------------------------------|-------|
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| Name of non-Boeing participant | ____ |
| Mail stop | Phone |
| Location of class requested | Time |



JOIN BOOKS FOR KIDS AND KOMO, AM 1000 FOR A VERY SPECIAL RADIO BROADCAST

Live from the Fabrication Division cafeteria, Thursday, December 3, 1992, 10 AM to 3 PM, KOMO radio and Books for Kids will join forces to share the magical world of reading with disadvantaged children. You'll hear how you can change a child's life by donating a book, and meet employees that are helping make it happen.

Please participate by listening and sending a new, unwrapped book to Majid Abab at MS 30-PA. For more information, please call 931-2252.



Books For Kids is a member of The Boeing Employees Community Outreach Family.

Employee deaths reported

The Boeing Company offers condolences to the families and friends of the following employees whose deaths were reported recently:

DAVID F. BRUNER died Nov. 6. He was a Storekeeper C in T-5300. His service date was Dec. 17, 1981.

MICHAEL J. DUNDON, a Boeing employee since Feb. 25, 1987, died Nov. 5. He was a buyer in G-1300.

ROBERT M. WAMSLEY, a senior specialist engineer in D-2820, died Nov. 11. His service date was Feb. 15, 1986.

Nov. 16 IAM job openings listed

Employees with the seniority dates (SenDate) indicated have been selected for promotion to the IAM job opening (JobNo.) at the work location (WLoc) listed below as of the promotional clearing date (ClrDate) shown. Any questions concerning the Nov. 16, 1992, promotional listing should be directed to shop stewards or union business representatives.

Orgn. WLoc JobNo Shift SenDate ClrDate

A-3710 A 70108 2 10-15-92 11-04

A-3710 A 70108 2 04-14-92 11-04

A-3710 A 70108 2 07-21-92 11-04

A-3710 A 70108 2 08-14-92 11-04

A-3710 A 70108 2 08-21-92 11-04

A-3710 A 70108 2 06-14-92 11-04

A-3710 A 70108 2 06-14-92 11-04

A-3710 A 70108 2 11-15-92 11-04

A-3710 A 70108 2 06-14-92 11-04

A-3710 A 70108 2 03-30-92 11-04

Global competitors line up for new CIS market

by Cheryl Addams

for Boeing Commercial Airplane Group

This is the second of a two-part series on the aircraft market in the 15 new republics that once made up the Soviet Union. This part focuses on the global competition Boeing is up against and some of the steps the company is taking to develop business relationships in the republics.)

The Boeing Company has recently entered one of the most challenging aircraft markets it has faced in 76 years: the 15 new independent republics that once made up the Soviet Union.

It's a market with great potential — one where an estimated 1,300 jetliners with a value of about \$72 billion may be purchased over the next 10 to 12 years.

To sell modern, efficient jetliners to the many emerging airlines in the 11 states that make up the Commonwealth of Independent States (CIS) and to airlines in the republics of Georgia, Estonia, Latvia and Lithuania, Boeing will have to compete against other airplane manufacturers.

Initially the challengers will be its traditional rivals in Europe and the United States, but eventually the company also will have to vie for orders with aircraft manufacturers in the CIS.

"We've never had to deal with a new market situation where they're already making airplanes — families of airplanes — that could be our competitors," said Larry Warfield, senior manager for the CIS and Eastern Europe, Boeing Commercial Airplane Group Maternal.

Competitors in the CIS

The CIS has four major design bureaus, each with commercial aircraft families. Tupolev, Ilyushin

and Yakovlev are based in the Russian Federation. Antonov is Ukraine-based. The airplanes they design are actually built at separate manufacturing complexes.

Historically, airplanes produced in the CIS have not had the fuel efficiency and the avionics to compete favorably with Western-made competitors. Some aviation experts believe it will be years before they have the technology and financing to be a serious threat. Others think it may not be that long.

Aviastar, a Russian aircraft manufacturing company located 500 miles east of Moscow, is already building Tupolev's 200-passenger, twin-engine Tu-204 — equipped with British-made Rolls-Royce engines and Western-made avionics. The aircraft, which Aviastar says will compete with the Tu-154, is marketed by Bravia, a new British-Russian joint venture. Bravia partners include Aviastar, Tupolev, and Robert Fleming and Co., a London-based merchant bank.

As owner of the most modern aviation factory in Russia and manufacturer of airplanes it claims are 20- to 25-percent less expensive than Western-built competitors, Aviastar is now seeking the business know-how it needs to penetrate Western markets. The company recently hired Price Waterhouse, a Western international management consulting agency, to help build its business.

Aggressive product development seems to be part of Aviastar's strategy. In October, Tass, the Russian news service, reported the manufacturer is looking at developing a 750-passenger jetliner and expects the giant aircraft's first flight to take place as early as 1994.

Boeing, McDonnell Douglas and Airbus are conducting studies looking at the feasibility of similar superjets. None of the companies has announced a firm schedule.

Tupolev is not alone in fitting its aircraft with Western-made engines. Ilyushin is working with Pratt & Whitney to put engines on the new, wide-body Il-96M. General Electric is talking with Ilyushin about new engines for the Il-114 turboprop, a domestic regional transport.

Western-made avionics also may make their way onto Ilyushin aircraft in the future. Rockwell Collins is working to place systems on the new Il-96M and Il-114. Not to be left out, Yakovlev is seeking Western partners to help develop the Yak-141 fighter.

Western rivals vie for market
The westward-looking CIS air-

craft designers and manufacturers are not the only potential Boeing competitors in the region.

McDonnell Douglas has an active sales campaign under way in the CIS and is advertising heavily in the aviation press there.

Airbus is making an even stronger attempt to obtain a foothold in the market and has had some success. It recently delivered five A310s to Russian International Airlines, an international division of Aeroflot formed to provide commercial flights between Moscow and the Far East.

The European consortium also is taking steps to work with the CIS aviation industry on coopera-

tive projects.

For example, it recently signed an agreement with VIAM, the All-Russia Institute of Aviation Materials, to obtain samples of aluminum-lithium alloys for testing to confirm that the quality meets Airbus standards.

But it may enter more far-reaching ventures in the future. Adam Brown, Airbus planning director, recently stated in a Financial Times-sponsored aviation conference in Berlin that he foresees an eventual collaboration on the production of aircraft aimed primarily at the considerable needs of domestic and regional operators in the region. ■

Being a player may mean collaboration

Boeing is taking serious steps toward industrial collaboration in the republics of the former Soviet Union.

"There is a big, big potential market, and in all probability you are going to have to be involved in the industry there," said Larry Clarkson, Boeing Corporate vice president for Planning and International Development.

"We have a choice of collaboration or competition," Clarkson said. "What we're trying to pursue with them is collaboration."

Collaboration in Russia

Following that direction, Boeing this past summer announced plans to investigate establishing a technical research center near Moscow.

"The Russians have a solid reputation for their technical expertise in aerospace matters," said Ben Cosgrove, Boeing Commercial Airplane Group senior vice president for Technology and Government Affairs.

If established, the center would study ways to use Russian technology to improve Boeing jetliners. In the center, Russian scientists and engineers would work together with Boeing engineers from the United States.

Boeing also is meeting with aviation-related industries in the region to talk about sharing technologies and materials so that all parties benefit.

This year, the company announced completion of a cooperative test program with the Central

Aerohydrodynamics Institute (commonly referred to as "TsAGI") in the Moscow suburb of Zhukovsky. The program included an evaluation of TsAGI's T-128 transonic wind tunnel performance capabilities.

The evaluation was done to certify that the tunnel test results could meet Boeing specifications so that the company might be able to use it in the future.

Boeing also is exploring possible collaboration with Russian manufacturers on parts fabrication, said Larry Warfield, senior manager for the Commonwealth of Independent States and eastern Europe, Boeing Commercial Airplane Group Material.

"We recently conducted technical surveys at the Voronezh Factory, the Samara and Hydromash landing gear factories, the Saldla Metallurgical Laboratory and several other factories," Warfield said.

"The first step is to certify the manufacturers to Boeing standards, so they could make parts for our airplanes," he said.

Warfield said Boeing also is looking at what metals and alloys the CIS is using and exploring the possible use of these materials in Boeing products.

"The whole idea behind this is to help each other and our customers," he said.

"We'd work together to obtain the best parts and services for our aircraft."

"Every alliance we form in the CIS has or will have the same criteria as the ones we have in the rest of the world. They'll be long-term relationships that help us deliver what our customers need: better, more flexible, more affordable, more reliable airplanes." ■

747 fuse pin inspections urged

Boeing has asked airline customers to conduct additional inspections of 747 engine struts.

"These expanded inspections are a way to ensure the continued integrity of the fleet," said Jim Johnson, vice president and general manager of the Boeing Commercial Airplane Group, Everett Division, which produces 747s.

"A month ago, we asked operators to conduct limited inspections of 747s," he said. "We've reviewed the results of those initial inspections with our customers and the Federal Aviation Administration and decided that additional inspections should be conducted as a precautionary measure."

Initially, airlines were asked to check for cracks and corrosion in the fuse pins that attach engine struts to the wings of 747s.

"During the first round of inspections, we found very few cases of cracked fuse pins. All those pins have been replaced," Johnson said. "However, on approximately 20 percent of the pins inspected, we found enough corrosion to warrant their replacement."

"Since corrosion eventually can lead to cracking, we think it's prudent to take a closer look at the fleet," Johnson added. "This will prevent cracks before they occur and ensure the continued integrity of the 747 fleet."

Boeing has prepared a service bulletin that will instruct airlines to do the following:

■ Within 30 days, conduct visual and ultrasonic inspections of the other side of those pins that already have been inspected.

Previously, customers were asked to inspect only one side of selected pins that have been in service for more than 5,000 landings.

■ Within 60 days, conduct visual and ultrasonic inspections of inboard-strut midspan fuse pins that have accumulated 3,000 landings or have been in service for more than three years.

■ Within 90 days, conduct visual and ultrasonic inspections of outboard-strut midspan fuse pins that have accumulated 3,000 landings or have been in service for more than three years.

■ Conduct ultrasonic inspections of the midspan fittings, which along with the fuse pins are used to connect engine struts to the wings.

■ Replace all old-style fuse pins with new pins. Old-style pins were produced up until 1980; however, the vast majority already have been removed from the fleet.

Boeing's new recommendations, which will affect more than 700 airplanes, will apply to 747s powered by General Electric, Pratt & Whitney and Rolls-Royce engines.

Besides calling for additional inspections, Boeing also is conducting test flights to obtain more detailed information about the forces applied to engine struts during every phase of flight.

That data, combined with information gathered during the next round of inspections, will be used to determine what additional actions may be necessary, Johnson said.

Boeing lectures at Cheng-Kung honor Wang Tsu of B&W fame



WANG TSU

during the company's 75th anniversary last year.

Wang Tsu worked with William Boeing and George Conrad Westervelt in 1916 to establish Pacific Aircraft Machinery and Materials, which became the Boeing Company. Later in his career Wang Tsu taught at Cheng-Kung.

Robert Kulfan, lead engineer for the High Speed Civil Transport Aerodynamics Configuration Group in Boeing Commercial Airplane Group, is presenting the first lecture today in the 10-part series continuing through Nov. 25 at the Institute of Aeronautics and Astro-

nautics, National Cheng-Kung University. A second lecture series will be scheduled in the future at Cheng-Kung.

The lecture series is based on an overview of how Boeing selects, designs, develops and manufactures new commercial aircraft with a focus on the HSCT.

The first lecture introduces the history of commercial transport airplane development, operations and economics. Subsequent lectures will cover the steps required to develop safe, environmentally acceptable and economically viable high-speed civil transport.

Technical issues to be discussed include overall HSCT configuration synthesis, aerodynamic and structural materials considerations, airplane systems requirements and manufacturing aspects of the final product.

The lecture series also will cover issues and concepts of HSCT technology and overall airplane design and manufacturing processes practiced in the international marketplace today.

After the lecture series is completed, Kulfan will present the keynote speech at the National Conference on Aeronautics and Astronautics in Cheng-Kung Nov. 26.

Steve Holt, acting supervisor of the Stress Methods Group, also will be a lecturer for the intensive one week "course." He currently researches, develops and disseminates stress analysis methods to structures engineers at Boeing Commercial Airplane Group. ■

15 scientists, engineers to get Boeing fellowships

Fifteen of the company's top scientists and engineers have been selected to join the Technical Fellowship of The Boeing Company. All have been named Associate Technical Fellows. They will receive special recognition at a ceremony in Seattle Jan. 22.

Joining the Fellowship are Boeing Defense & Space Group

Robert W. Bington 2-1607

James M. Carter 9-5563

Bruce E. Clingan 2-2673

Walter L. Curtis L-7878

Robert K. MacGregor 2-4043

Derek E. McBirnie 9-1290

Boeing Commercial Airplane Group

Christopher J. Borland B-113B

Wan T. Chee B-1107

James P. Crowley B-126B

Robert A. Curnutt B-113U

Keith A. Evans B-151P

James H. Huetelman E-PA1T

Dennis P. Sarr A-2625

Jeffrey R. Summitt B-676T

Timothy Wang B-16AU

Established in 1990, the Technical Fellowship of The Boeing Company provides an opportunity to

recognize and reward outstanding employees in scientific and engineering disciplines who pursue a technical career path in both Engineering and Operations organizations.

The first step on this path is becoming a senior principal engineer or scientist (Grade 20). Grade 20s have the option to continue to devote their time and talents to the company's technical needs rather than move into management.

OBJECTIVE: Technical excellence.

In this way Boeing maintains a skilled, active core of outstanding engineers and scientists, while the top achievers among them have the opportunity to progress through the Fellowship program.

Those selected from the pool of Grade 20s to become Associate Fellows have distinguished themselves as valued contributors, recognized by industry peers as experts in their respective fields.

The criteria for the Associate Fel-

lows further requires that they "demonstrate judgment, competence and incisive reasoning; generate unique concepts based on original thinking and foresight; use innovative reasoning to attack difficult problems of major importance to The Boeing Company, its customers or outside agencies; and exhibit an ability to shape long-range growth or development philosophies, goals and strategies."

The next progression in the Fellowship career path is Technical Fellow, which has additional demanding criteria for eligibility. No new Technical Fellows are being added to the Fellowship in 1993.

The selection process begins each year in the spring with nominations submitted from the division level.

The candidates are reviewed by the current Technical Fellows, and their recommendations are sent back to the divisions for concurrence.

Finalists are sent to the Corporate senior vice presidents of Operations and Engineering and Technology for approval. ■

NASA gives contract to Grumman/Boeing

Boeing Computer Support Services, as a subcontractor to Grumman Technical Services, recently was selected by NASA to operate the Johnson Space Center - Information Systems Contract.

The five-year Grumman contract, valued at more than \$300 million, is intended to integrate information services now being performed under seven separate contracts.

Grumman will have overall responsibility for non-mission-related data processing, networking and telecommunications operations at the Johnson facility in Houston. This includes installation, maintenance and operation of mainframe com-

puters, institutional and local area networks, minicomputers, workstations, personal computers and terminals, as well as software development and maintenance.

The team also will support development and maintenance of many current administrative, payroll, management, human resources and business operations systems now in use at the Space Center.

At the NASA-Johnson Space Center, the Information Services group will provide primary support in network services, telecommunications, and workstation installation and maintenance. ■

SHEA's Jack Potter to retire

Jack Potter, Boeing Corporate vice president for Safety, Health & Environmental Affairs, will retire Jan. 1.

John Johnson, now director of Boeing Defense & Space Group Facilities, will become director of SHEA jointly with Potter effective Nov. 30.

Both Potter and Johnson will report to Deane Cruze, Corporate senior vice president for Operations.

Succeeding Johnson will be Myrl Schulz, who will report to John Johnson, Boeing Defense & Space Group senior vice president for Operations. ■

Check guidelines about accepting gifts

Around the holiday season, Boeing employees might receive invitations to parties or seminars held to announce new products by suppliers to the company.

Door prizes or other items might be offered to attendees.

Nancy Higgins, Corporate director of Ethics Policy, said Implementation Instruction 11C1-5 for Business Conduct Policy 11C1 sets

forth guidelines for accepting such business courtesies. The instruction is explained on Page 47 of Business Conduct Policy & Guidelines.

Higgins said employees should review the Implementation Instruction before accepting an invitation to a supplier's open house, and prior to accepting a gift or discount from a supplier. The guidelines suggest that management approval

should be sought before attending such open houses, she said.

"If the supplier offers an inexpensive gift, such as a calendar, pen or coffee mug, it can be accepted," Higgins said. "Items of appreciable value, such as a 90-percent discount on a product sold by the supplier, should be declined unless the offer is part of a company-wide approved program." ■

737s for Australian Airlines

Three 737-400s have been added to Australian Airlines' announced order list. Boeing Commercial Airplane Group confirmed Nov. 18.

The airline said that two of the aircraft, valued at about \$70 million, are the 50th and 51st to be purchased by Australian since its first Boeing order, a 727-100 trijet, 30 years ago. In addition, a third 737-400 not previously announced, valued at about \$35 million, was added to the list.

"Our decision to commit to these additional aircraft reflects our satisfaction with the 737, which is very cost-effective and very popular with our passengers," said John Schap, chief executive, Australian Airlines.

Australian Airlines was acquired by Qantas Airways Ltd. two months ago. The merged government carrier is in the process of being privatized.

Visit to Vietnam Veterans Memorial has new meaning

by Steve Copley
Boeing News, Seattle

John Black has made several trips to the Vietnam Veterans Memorial, but this one was different.

One difference was the magnitude of the Nov. 6-11 ceremonies honoring the 10th anniversary of the memorial. During those six days, 100,000 veterans and their families visited the site in Washington, D.C., he said.

Black, director of World Class Company Studies for Boeing Commercial Airplane Group in Renton, knows well the agony of the Vietnam. A former Army officer who served in the Mekong Delta, he has set his feelings about the Vietnam war to music (Boeing News, July 2).

As part of the anniversary ceremonies he was asked to sing a selection from his album "Vietnam Farewell," called "The Women on the Wall."

The Boeing Company supported his trip, he said.

"Each time you go to the memorial you have a better understanding of what happened," Black said after his return from the ceremonies. "This has become a holy ground. I really began to understand what this feeling is in my gut. This was a time of grieving and healing."

More than 25 million people have

passed by the 58,183 names etched into the black granite slabs at the Vietnam Veterans Memorial.

Black was present during part of the ceremony when volunteers read the names on the wall as part of the anniversary ceremonies. It took three days for the volunteers to finish.

Black reflected on the names of the eight Army and Air Force nurses killed in Vietnam, women he had paid tribute to in his song. "Women on the Wall."

After the concert he visited the memorial wall and touched their names. "I felt real close to them," he said. He also visited the names of two Army buddies killed in Vietnam.

It's common for visitors to the memorial to place a piece of paper on a name and rub it with a marker. Transferred to the paper, they become keepsakes.

"I had never made any rubbings before," Black said, pulling the names of Leonard G. Marcus and Hardy W. Peoples from a file folder.

Marcus was fatally wounded in June of 1967 while serving in the Mekong Delta, but died from his injuries in Japan with his wife at his side.

Peoples, an Army Ranger who, like Black, served as an adviser to the South Vietnamese army, died when his jeep was blown apart by a mine.

The Vietnam experience is becoming an international one, according to Black. Gen. Ruslan Aushov, a senior Russian military officer and a contingent of fellow

officers participated in the Vietnam memorial ceremonies.

To Black, the Russians represented a paradox.

"I spent eight years in an infantry

battalion in Germany," Black said. "Our job was to get ready to defend West Germany against the forces of what was then the Soviet Union, the 'Evil Empire.'"

But this was a different time and place. In the shadow of the Vietnam Veterans Memorial, Aushov and Black found they had something in common. The nations of both men had suffered through military stalemates.

It is important that the lessons of Vietnam and Afghanistan be remembered, according to Black.

"We are going to make the same mistakes in the future unless we study the history of our involvement in Vietnam," he said.

"Vietnam will never surrender to some statute of limitation. It inevitably will trail into history, but not until it is rethought and relived through countless tears until its final passing."

Now, Black said, the Russians are going to send him their music on Afghanistan. Someday an album may be published featuring the songs of veterans from both wars, he said.

For those searching for answers there is a common theme, according to Black.

"Who did I leave behind," he asked in one of his songs.

"So many faces that I still can see, 'Faces without names, ' 'Memories still alive to me.'"



Boeing employee John Black kneels to read some of the 58,183 names on the Vietnam Veterans Memorial in Washington, D.C., while attending the 10th anniversary of the memorial.

— photo by Melissa Laitoch